Report Date: January 13, 2016

# **Priority 2 Species of Greatest Conservation Need (SGCN)**

Class: Aves (Birds)

Order: Charadriiformes (Plovers, Sandpipers, And Allies)

Family: Scolopacidae (Curlews, Dowitchers, Godwits, Knots, Phalaropes, Sandpipers, Snipe, Yellowlegs, And Woodcock)

#### **General comments:**

Considered stable range wide, considered species of low or moderate concern by US Shorebird Conservation Plan, however high regional conservation priority. Information from Delaware Bay indicates a long term decline, so suggest a precautionary population trend of apparent decline but need more data to meet the significant decline criteria. Sanderling is on the "Watch List and needing Management Attention" by the U.S. Shorebird Conservation Plan Partnership - 2015 (Andres et al. 2015).

# **Species Conservation Range Maps for Sanderling:**

Town Map: <u>Calidris alba\_Towns.pdf</u>
Subwatershed Map: <u>Calidris alba\_HUC12.pdf</u>

# **SGCN Priority Ranking - Designation Criteria:**

**Risk of Extirpation: NA** 

State Special Concern or NMFS Species of Concern: NA

**Recent Significant Declines: NA** 

**Regional Endemic: NA** 

**High Regional Conservation Priority:** 

**United States Shorebird Conservation Plan:** 

Species of High Concern

**North Atlantic Regional Shorebird Plan:** 

Species of High Concern

#### **High Climate Change Vulnerability:**

Vulnerability: 3, Confidence: Medium, Reviewers: 2

**Understudied rare taxa: NA** 

Historical: NA

**Culturally Significant: NA** 

## **Habitats Assigned to Sanderling:**

#### Formation Name Cliff & Rock

Macrogroup Name Rocky Coast

Habitat System Name: Acadian-North Atlantic Rocky Coast Habitat System Name: North Atlantic Cobble Shore

### Formation Name Intertidal

Macrogroup Name Intertidal Bedrock
Habitat System Name: High Intertidal
Habitat System Name: Low-Intertidal
Habitat System Name: Mid-Intertidal

Macrogroup Name Intertidal Gravel Shore

Habitat System Name: High Intertidal
Habitat System Name: Lower Intertidal
Habitat System Name: Mid-Intertidal

Macrogroup Name Intertidal Mudflat
Habitat System Name: Non-Vascular Mudflat

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Formation Name Intertidal

Macrogroup Name Intertidal Sandy Shore

**Habitat System Name:** Sand Beach **Habitat System Name:** Sand Flat

# **Stressors Assigned to Sanderling:**

Stressor Priority Level based on Severity and Actionability

	Moderate Severity	High Severity
Highly Actionable	Medium-High	High
Moderately Actionable	Medium	Medium-High
Actionable with Difficulty	Low	Low

IUCN Level 1 Threat Biological Resource Use

IUCN Level 2 Threat: Fishing and Harvesting of Aquatic Resources

Severity: Moderate Severity Actionability: Highly actionable

Notes: Habitat degradation from macroalgae harvest may be minimized through area closure and environmental permit

review process.

IUCN Level 1 Threat Human Intrusions and Disturbance

**IUCN Level 2 Threat:** Recreational Activities

Severity: Moderate Severity Actionability: Highly actionable

Notes: Human related disturbance can be minimized through outreach programs, municipal beach management

agreements, municipal ordinance such as leash laws and environmental permit review.

IUCN Level 1 Threat Natural Systems Modifications

IUCN Level 2 Threat: Other Ecosystem Modifications

Severity: Moderate Severity Actionability: Highly actionable

Notes: Habitat loss from rip rap, seawalls and dredging can be mitigated through environmental permit review process.

Beach nourishment can be used to mitigate impacts from dredge projects.

IUCN Level 1 Threat Pollution

IUCN Level 2 Threat: Industrial and Military Effluents

Severity: Moderate Severity Actionability: Moderately actionable

**Notes:** Oil spill prevention can occur through contingency planning and environmental permit review. Impacts can be

minimized through clean up efforts and compensation.

IUCN Level 1 Threat Residential and Commercial Development

IUCN Level 2 Threat: Housing and Urban Areas

Severity: Moderate Severity Actionability: Moderately actionable

Notes: Habitat loss from development can be mitigated through environmental permit review process.

IUCN Level 1 Threat Climate Change and Severe Weather

**IUCN Level 2 Threat:** Habitat Shifting or Alteration

Severity: Severe Actionability: Actionable with difficulty

**Notes:** Habitat loss from sea level rise and impacts to invertebrate prey base from ocean acidification may be severe.

Conservation of upland areas may allow for intertidal areas to migrate inland as sea level rise occurs.

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**IUCN Level 1 Threat Climate Change and Severe Weather** 

> **IUCN Level 2 Threat:** Storms and Flooding

> > **Severity:** Moderate Severity **Actionability:** Actionable with difficulty

Notes: Habitat loss from beach erosion may be minimized through beach management programs and environmental

permit review. Beach nourishment can minimize short term impacts from habitat loss.

**IUCN Level 2 Threat: Temperature Extremes** 

> Actionability: Actionable with difficulty **Severity:** Moderate Severity

**Notes:** Rising ocean temperatures may impact invertebrate prey base.

# **Species Level Conservation Actions Assigned to Sanderling:**

None. Only species specific conservation actions that address high (red) or medium-high (orange) priority stressors are summarized here.

#### **Conservation Actions Associated with the Shorebirds Guild:**

**Conservation Action** 

**Category:** Survey and Monitoring **Biological Priority:** high Type: on-going

Report Date: January 13, 2016

Identify and map priority feeding and roosting areas including offshore habitats, and implement protection initiatives. Enter data in IFW ETSC database.

# Stressor(s) Addressed By This Conservation Action

Lack of knowledge, Industrial and Military Effluents, Housing and Urban Areas, Tourism and Recreational Areas, Commercial and Industrial Areas

**Conservation Action Category:** Species Management **Biological Priority:** high Type: new

Place symbolic stake and twine fencing around important beach roosting areas with signage to identify roosting areas.

#### Stressor(s) Addressed By This Conservation Action

Recreational Activities, Tourism and Recreational Areas

Category: Research **Biological Priority:** high Type: on-going **Conservation Action** 

Work with the Maine Department of Marine Resources to conduct research to determine the impact of macroalgae harvest on wintering waterfowl

## Stressor(s) Addressed By This Conservation Action

Fishing and Harvesting of Aquatic Resources

**Category:** Public Outreach **Biological Priority:** high **Conservation Action** Type: on-going

Provide outreach to pet owners, beachgoers, kayakers, beach managers, and landowners to raise public awareness on shorebirds and on the impacts of disturbance from recreational activities in coastal areas.

#### Stressor(s) Addressed By This Conservation Action

**Recreational Activities** 

**Category:** Habitat Management **Biological Priority:** moderate **Conservation Action** Type: new

Use voluntary agreements, conservation easements, conservation tax abatements and incentives to protect important habitats

### Stressor(s) Addressed By This Conservation Action

Work and Other Activities, Recreational Activities, Housing and Urban Areas, Commercial and Industrial Areas

**Biological Priority:** high **Conservation Action Category:** Survey and Monitoring Type: on-going

To determine population status continue monitoring program for SGCN shorebird species at high priority migration sites coastwide. Continue to coordinate with ISS, PRISM, Atlantic Flyway ESMP programs.

Birds Group Page 3 of 4

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#### Stressor(s) Addressed By This Conservation Action

Lack of knowledge

**Conservation Action** Category: Research **Biological Priority:** high Type: on-going

Identify prey resources in significant staging areas to determine potential limiting factors and optimal management techniques to promote these resources.

## Stressor(s) Addressed By This Conservation Action

Lack of knowledge

Biological Priority: high **Conservation Action** Category: Research

Type: on-going

Report Date: January 13, 2016

Determine length of stay at stopover areas, site fidelity, local movements and premigration condition to determine if coastal habitats are meeting shorebird requirements for successful migration.

### Stressor(s) Addressed By This Conservation Action

Lack of knowledge

**Biological Priority:** moderate **Conservation Action Category:** Research Type: new

Determine limiting factors for SGCN shorebird species on breeding, migratory, or wintering areas.

## Stressor(s) Addressed By This Conservation Action

Lack of knowledge

**Conservation Action** Category: Research Biological Priority: high Type: on-going

Gain a better understanding of the extent and impacts of algae harvesting on staging and wintering shorebirds. Conduct longterm monitoring of ecosystem-wide impacts of cutting algae to determine potential impacts to shorebird habitats and invertebrate pr

#### Stressor(s) Addressed By This Conservation Action

Fishing and Harvesting of Aquatic Resources

### **Broad Taxonomic Group Conservation Actions:**

Additional relevant conservation actions for this species are assigned within broader taxonomic groups in Maine's 2015 Wildlife Action Plan: Element 4, Table 4-1.

#### **Habitat Based Conservation Actions:**

Additional conservation actions that may benefit habitat(s) associated with this species can be found in Maine's 2015 Wildlife Action Plan: Element 4, Table 4-15. Click on the Habitat Grouping of interest to launch a habitat based report summarizing relevant conservation actions and associated SGCN.

The Wildlife Action Plan was developed through a lengthy participatory process with state agencies, targeted conservation partners, and the general public. The Plan is non-regulatory. The species, stressors, and voluntary conservation actions identified in the Plan complement, but do not replace, existing work programs and priorities by state agencies and partners.